Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Claims 1-70 (canceled)

Claim 71 (Currently amended): A method for ~~transcutaneous immunization~~ inducing an antigen-specific immune response in an organism comprising:

(a) providing ~~an adjuvant only~~ a formulation ~~comprised of~~ comprising at least one ~~adjuvant~~ molecule which has both antigentic and adjuvant activities and wherein the formulation does not contain molecules having only antigenic activity ~~is itself antigenic~~;

wherein the ~~adjuvant is a~~ molecule is selected from the group consisting of ADP-ribosylating exotoxins, B subunits of ADP-ribosylating exotoxins and modified ADP-ribosylating exotoxins, wherein the modified exotoxin is catalytically inactivated or modified to be less toxic to the organism than the non-modified exotoxin;

(b) applying said formulation to skin of ~~an~~ the organism without penetrating through said skin's dermis layer; and

(c) wherein said formulation induces an antigen-specific immune response in said organism, wherein at least one epitope of said ~~antigen~~ molecule is recognized.

Claim 72 (Currently Amended): A method of claim 71, wherein said ADP-ribosylating exotoxin is selected from the group consisting of *E. coli* heat-labile entertoxin (LT), cholera toxin (CT)~~, diphtheria toxin (DT),~~ and pertussis toxin (PT)~~, and tetanus toxin (TT)~~.

Claim 73 (Cancelled).

Claim 74 (Currently Amended): The method of claim [73] 71, further comprising hydration, wherein hydration further enhances the antigen-specific immune response as

compared to application of the formulation without hydration.

Claim 75 (Previously presented): The method of claim 71, wherein the organism is a human.

Claim 76 (Previously presented): The method of claim 71, wherein the formulation is applied in liquid form.

Claim 77 (Previously presented): The method of claim 71, wherein the formulation is provided in a form selected from the group consisting of cream, emulsion, gel, lotion, ointment, paste, solution and suspension.

Claim 78 (Previously presented): The method of claim 71, wherein the formulation is further provided in a container suitable for immersion or spraying of the organism.

Claim 79 (Previously presented): The method of claim 71, wherein the antigen specific immune response is induced after only one application of the formulation to the skin.

Claim 80 (Previously presented): The method of claim 71, wherein the formulation is packaged in a unit dosage form which is effective to provide an immune response after one application of the formulation to the skin.

Claim 81 (Currently amended): A method for [transcutaneous immunization] <u>inducing an antigen-specific immune response</u> comprising:

(a) providing a formulation comprised of antigen and adjuvant;

wherein the adjuvant is selected from the group consisting of ADP-ribosylating exotoxins, B subunits of ADP-ribosylating exotoxins and modified ADP-ribosylating exotoxins,

wherein the modified exotoxin is catalytically inactivated or

modified to be less toxic to the organism than ~~the~~ a non-modified exotoxin; and,

(b) applying said formulation to skin of an organism without penetrating through said skin's dermis layer;

wherein said formulation induces an antigen-specific immune response in said organism, wherein at least one epitope of said antigen is recognized.

Claim 82 (Previously presented): The method of claim 81, wherein the antigen specific immune response recognizes at least one antigen of a pathogen.

Claim 83 (Previously presented): The method of claim 82, wherein the pathogen is selected from the group consisting of a bacterium, a virus, a fungus and a parasite.

Claim 84 (Currently amended): ~~A~~ The method of claim 83, wherein the virus is selected from the group consisting of live viruses, attenuated viruses, and inactivated viruses.

Claim 85 (Currently amended): The method of claim 84, wherein the inactivated virus is ~~heat~~ killed rabies virus.

Claim 86 (Currently amended): The method of claim 81, wherein the ~~antigen specific~~ antigen-specific immune response recognizes an antigen selected from the group consisting of influenza virus hemagglutinin (HA), influenza virus nucleoprotein (NP), *Hemophilus influenza* B polysaccharide conjugate (Hib-PS), and *Escherichia coli* colonization factor CS6.

Claim 87 (Currently amended): ~~A~~ The method of claim 81, wherein said ADP-ribosylating exotoxin is selected from the group consisting of *E. coli* heat-labile entertoxin (LT), cholera toxin (CT)~~, diphtheria toxin (DT),~~ and pertussis toxin (PT)~~, and tetanus toxin (TT)~~.

Claim 88 (Cancelled).

Claim 89 (Currently amended): The method of claim [88] 81, wherein ~~hydration~~ hydrating the skin enhances the antigen-specific immune response as compared to application of the formulation without hydration.

Claim 90 (Previously presented): The method of claim 81, wherein the organism is a human.

Claim 91 (Previously presented): The method of claim 81, wherein the formulation is applied in liquid form.

Claim 92 (Previously presented): The method of claim 81, wherein the formulation is provided in a form selected from the group consisting of cream, emulsion, gel, lotion, ointment, paste, solution and suspension.

Claim 93 (Previously presented): The method of claim 81, wherein the formulation is further provided in a container suitable for immersion or spraying of the organism.

Claim 94 (Currently amended): The method of claim 81, wherein the ~~antigen-specific~~ antigen-specific immune response is induced after only one application of the formulation to the skin.

Claim 95 (Previously presented): The method of claim 81, wherein the formulation is packaged in a unit dosage form which is effective to provide an immune response after one application of the formulation to the skin.

Claim 96 (New): The method of claim 71, wherein said method further comprises a patch.

Claim 97 (New): The method of claim 81, wherein said method further comprises a patch.